MITSUBISHI ELECTRIC

Mitsubishi PLC

Changes for the Better

September 2006

New Product Release

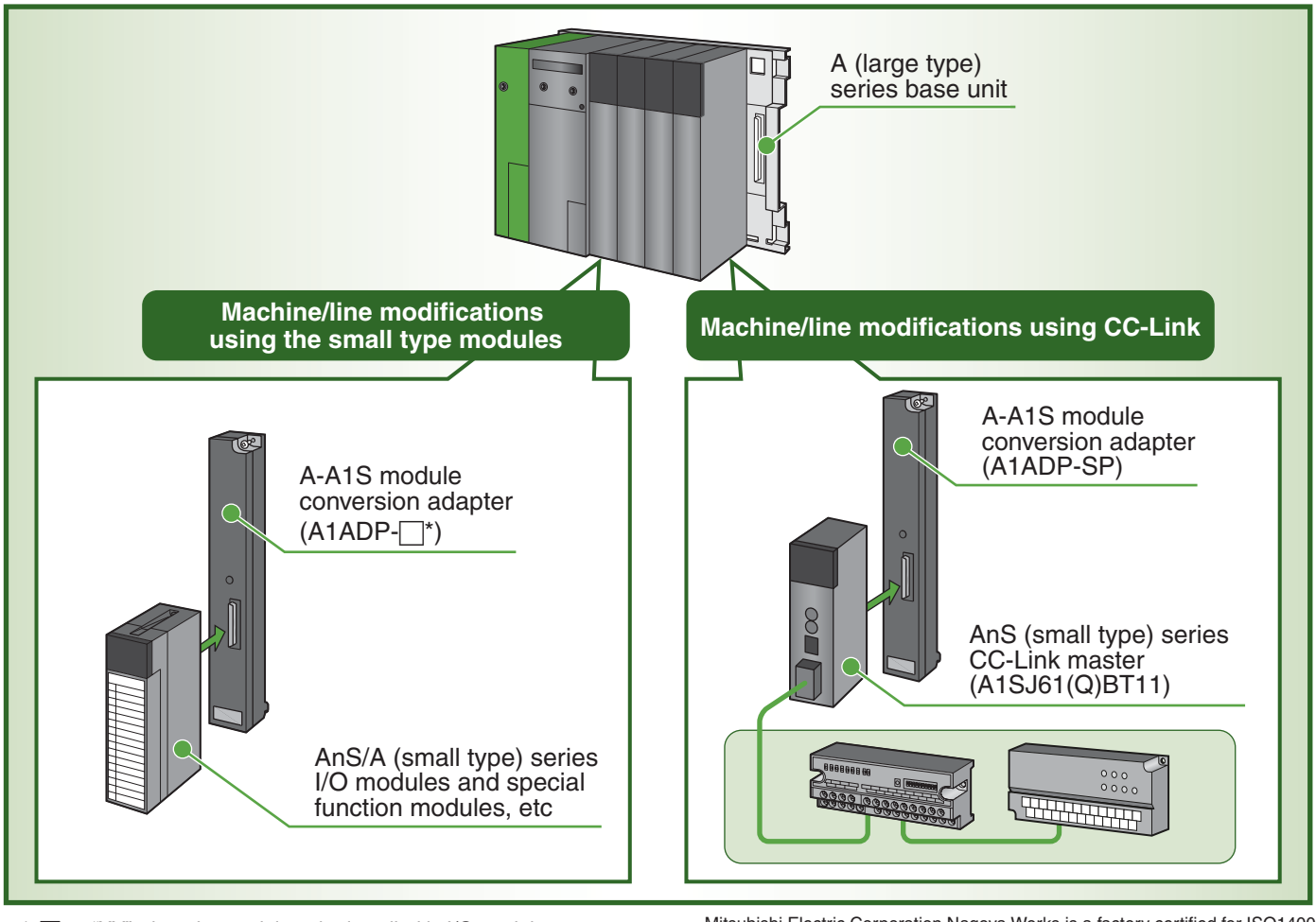
No.273E

A1ADP-XY (for I/O modules)
A1ADP-SP (for Special Function Modules)

A-A1S Module Conversion Adapter

New AnS series to A/QnA series conversion adapter!

Adding modules for machine/line modifications is simple! (After A/QnA large type series discontinuation)


A (large type) series base unit
Machine/line modifications using the small type modules
Machine/line modifications using CC-Link
A-A1S module conversion adapter (A1ADP-□*)
AnS/A (small type) series I/O modules and special function modules, etc
A-A1S module conversion adapter (A1ADP-SP)
AnS (small type) series CC-Link master (A1SJ61(Q)BT11)

*: □ •"XY" when the module to be installed is I/O module
• "SP" when the module to be installed is special function module
I/O allocation module types (input, output, special) and A-A1S module conversion adapter types may differ.
Before selection, refer to "Compatible modules list" given on page 2 and 3.

Refer to the technical news (T99-0050F or later) for A/QnA large type module and AnS (small type) series performance/specification comparisons.

Mitsubishi Electric Corporation Nagoya Works is a factory certified for ISO14001 (standards for environmental management systems) and ISO9001(standards for quality assurance managememt systems)

ISO 14001 JACO EC97J1113 UKAS ENVIRONMENTAL MANAGEMENT 051

Certified ISO 9001 by BVQi UKAS QUALITY MANAGEMENT 008

Features

Realizing machine/line modifications of the existing system using small type modules

Machine/line modifications are possible regardless of the number of I/O points and available open I/O slots.

(1) Machine/line modifications using small type modules

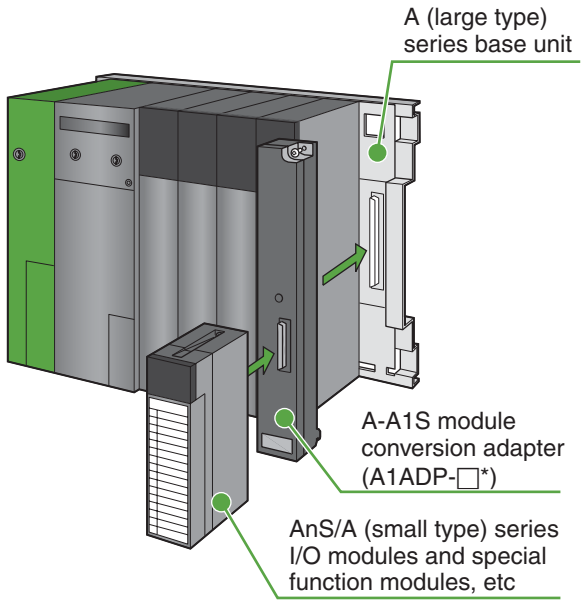
STEP1

Select from the AnS (small type) series, the units that have the necessary functionality for the machine/line modifications.

STEP2

Utilizing the A-A1S module conversion adapter, attach the AnS (small type) series module to the A (large type) series base unit empty slot.

* In order to do this machine/line modification, it is necessary to have "Empty slots in the existing system and extra I/O points available".


A (large type) series base unit
A-A1S module conversion adapter (A1ADP-□*)
AnS/A (small type) series I/O modules and special function modules, etc

(2) Machine/line modifications using CC-Link

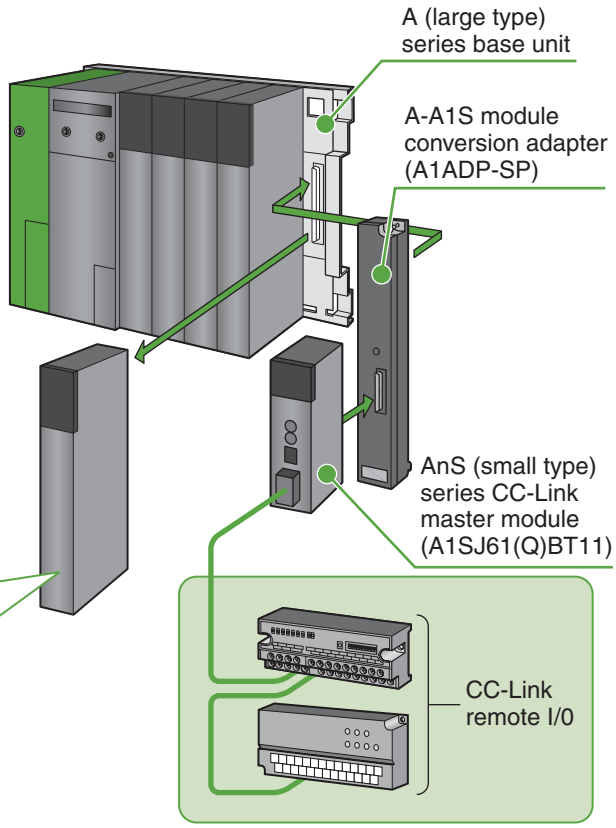
STEP1

Select from the CC-link product range, the module that has the necessary functionality for the machinery/line modifications.

STEP2

Attach to the A (large type) empty base slot, the AnS (small type) series CC-Link system master/local station module using the A-A1S module conversion adapter, and add modules using the CC-Link system.

When "there are no open slots on the existing system" or "there are no spare I/O points left", in order to attach the CC-link master/local station module, take off one/or some existing modules from the existing system. Also, add a module on the CC-link remote in order to replace the modules that were removed that corresponds.


A (large type) series base unit
A-A1S module conversion adapter (A1ADP-SP)
AnS (small type) series CC-Link master module (A1SJ61(Q)BT11)
CC-Link remote I/0

Up to three A-A1S module conversion adapters can be installed on one base unit.

Compatible models list

○ : Mountable ×: Not mountable

Product	Model	A1ADP usage	Usable adapter
CPU module	A1SJHCPU	×	—
	A1SHCPU	×	—
	A1SCPUC24-R2	×	—
	A2SHCPU	×	—
	A2USCPU	×	—
	A2USHCPU-S1	×	—
	Q2ASCPU	×	—
	Q2ASCPU-S1	×	—
	Q2ASHCPU	×	—
	Q2ASHCPU-S1	×	—
Input module	A1SX10	○	XY
	A1SX10EU	○	XY
	A1SX20	○	XY
	A1SX20EU	○	XY
	A1SX30	○	XY
	A1SX40	○	XY
	A1SX40-S1	○	XY
	A1SX40-S2	○	XY
	A1SX41	○	XY
	A1SX41-S1	○	XY
	A1SX41-S2	○	XY
	A1SX42	○	XY
	A1SX42-S1	○	XY
	A1SX42-S2	○	XY
	A1SX71	○	XY
	A1SX80	○	XY
	A1SX80-S1	○	XY
	A1SX80-S2	○	XY
	A1SX81	○	XY
	A1SX81-S2	○	XY
	A1SX82-S1	○	XY
Output module	A1SY10	○	XY
	A1SY10EU	○	XY
	A1SY14EU	○	XY
	A1SY18A	○	XY
	A1SY18AEU	○	XY
	A1SY22	○	XY
	A1SY28A	○	XY
	A1SY40	○	XY
	A1SY41	○	XY
	A1SY42P	○	XY
	A1SY50	○	XY
	A1SY60	○	XY
	A1SY60E	○	XY
	A1SY68A	○	XY
	A1SY71	○	XY
	A1SY80	○	XY
	A1SY81	○	XY
	A1SY82	○	XY
I/O composite module	A1SH42	○	XY
	A1SH42-S1	○	XY
	A1SX48Y58	○	XY
	A1SX48Y18	○	XY
	A1SJ-56DR	×	—
	A1SJ-56DT	×	—
Dynamic scan input module	A1S42X	○	XY
Dynamic scan output module	A1S42Y	○	XY
Dummy module	A1SG62	○	XY
Interrupt module	A1SI61	○	XY*1
Power supply module	A1S61PN	×	—
	A1S62PN	×	—
	A1S63P	×	—
Pulse catch module	A1SP60	○	XY
Analog timer module	A1ST60	○	XY
MODBUS interface module	A1SJ71UC24-R2-S2	○	SP
	A1SJ71UC24-R4-S2	○	SP
Profibus-DP interface module	A1SJ71PB92D	○	SP
Profibus-FMS interface module	A1SJ71PB96F	○	SP
DeviceNet master module	A1SJ71DN91	○	SP

○: Mountable ×: Not mountable

Product	Model	A1ADP usage	Usable adapter
Analog input module	A1S64AD	○	SP
	A1S68AD	○	SP
Analog output module	A1S62DA	○	SP
	A1S68DAI	○	SP
	A1S68DAV	○	SP
Analog I/O module	A1S63ADA	○	SP
	A1S66ADA	○	XY
Temperature input module	A1S62RD3N	○	SP
	A1S62RD4N	○	SP
	A1S68TD	○	SP
Temperature control module	A1S62TCTT-S2	○	SP
	A1S62TCRTBW-S2	○	SP
	A1S62TCRT-S2	○	SP
	A1S62TCTTBW-S2	○	SP
	A1S64TCTT-S1	○	SP
	A1S64TCTTBW-S1	○	SP
	A1S64TCRT-S1	○	SP
	A1S64TCRTBW-S1	○	SP
High-speed counter module	A1SD61	○	SP
	A1SD62	○	SP
	A1SD62E	○	SP
	A1SD62D	○	SP
	A1SD62D-S1	○	SP
Positioning module	A1SD70	×	—
	A1SD75M1	○	SP
	A1SD75M2	○	SP
	A1SD75M3	○	SP
	A1SD75P1-S3	○	SP
	A1SD75P2-S3	○	SP
	A1SD75P3-S3	○	SP
Position detection module	A1S62LS	○	SP
Intelligent communication module	A1SD51S	○	SP
Ethernet module	A1SJ71E71N-B2	○	SP
	A1SJ71E71N-B5	○	SP
	A1SJ71E71N3-T	○	SP
	A1SJ71QE71N-B2	○	SP
	A1SJ71QE71N-B5	○	SP
	A1SJ71QE71N3-T	○	SP
Serial communication module	A1SJ71QC24N	○	SP
	A1SJ71QC24N-R2	○	SP
MELSECNET/B data link module	A1SJ71AT21B	○	SP
	A1SJ72T25B	×	—
MELSECNET data link module	A1SJ71AP21	○	SP
	A1SJ71AR21	○	SP
CC-Link master/local module	A1SJ61BT11	○	SP
	A1SJ61QBT11	○	SP
MELSECNET/MINI-S3 master module*2	A1SJ71PT32-S3	○	SP
MELSEC-I/OLINK master module	A1SJ51T64	○	SP*1
JEMANET(OPCN-1) interface module	A1SJ71J92-S3	○	SP
	A1SJ72J95	×	—
B/NET interface module	A1SJ71B62-S3	○	SP
Computer link module	A1SJ71UC24-R2	○	SP
	A1SJ71UC24-PRF	○	SP
	A1SJ71UC24-R4	○	SP
MELSECNET/10 network module*3	A1SJ71LP21	○	SP
	A1SJ71BR11	○	SP
	A1SJ71LR21	○	SP
	A1SJ71QLP21	○	SP
	A1SJ71QLP21S	×	—
	A1SJ71QLR21	○	SP
	A1SJ72QLP25	×	—
	A1SJ72QLR25	×	—
	A1SJ71QBR11	○	SP
	A1SJ72QBR15	×	—
S-LINK master module	A1SJ71SL92N	○	SP
AS-i master module	A1SJ71AS92	○	SP
Modem interface module	A1SJ71CMO-S3	○	SP
PC fault detection module	A1SS91	○	SP*1
Memory card interface module	A1SD59J-S2	○	SP
ID interface module	A1SD35ID1	○	SP
	A1SD35ID2	○	SP

*1: Note that the types of I/O allocation module and A-A1S module conversion adapter are different.
*2: The A1SJ71PT32-S3 will be discontinued in September 2008.
*3: The production of the large type MELSECNET/10 network module will be continued so that you can replace the MELSECNET(Ⅱ) or MELSECNET/B to the MELSECNET/10. Therefore, use an A/QnA (large type) series module for a large type MELSECNET/10 network module, though the usage of the A-A1S module conversion adapter is shown.

Attention in use

■ The number of mounted modules of each one base unit

Up to three modules can be installed to one base unit. Use within the available number of modules mounted to each unit to execute proper operation.

■ 5VDC internal current consumption

When replacing the A (large type) series module by the AnS (small type) series module, the internal current consumption may increase. At replacement, confirm that the current consumption of the modules mounted on the base units does not exceed the rated output current of the power supply module used. (Check the A-A1S module conversion adapter internal current consumption on the following table of performance specifications.)

■ Installing on the extension base units which do not require power supply module

If the AnS (small type) series module is installed to an extension base unit not needing a power supply module (A52B, A55B, or A58B), confirm that the voltage at the receiving end is more than 4.75V. (Check on the chapter of “Base Unit And Extension Cable” in the A Series User's Manual for the details.)

■ Installing the dustproof cover

Be sure to attach a dustproof cover to prevent defect or an electric shock caused by foreign objects entering to inside the module.

- **AnS (small type) series module**
  Install to the A-A1S module conversion adapter after attaching the dustproof cover included with it to the AnS (small type) series module.
- **A (large type) series module**
  When using the A (large type) series module to which the A-A1S module conversion adapter has been installed on the right side, attach a dustproof cover to the module. (prepared by user)
  *Product name: A55B, A58BI/O dustproof cover maker

■ Replacing existing module

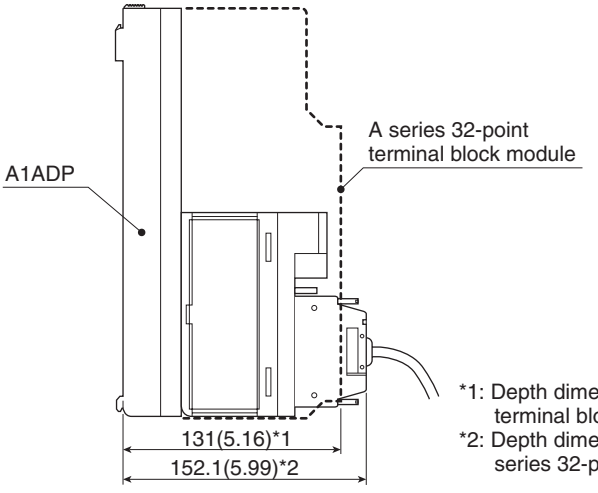
When replacing the A (large type) series module by the AnS (small type) series module, the specifications differ depend on the modules.
Refer to the technical news (T99-0050F or later) for confirmation of the equivalents and specifications.

■ Depth dimension of the AnS (small type) series 32-point I/O connector type module

When replacing the large type 32-point terminal block module by the small type 32-point connector type module, the depth dimension may increase. (refer to the following figure.) Check the depth dimension for the installation site.

Comparison of the dimensions between the large type 32-point terminal block module and the small type 32-point connector type module

Unit: mm (inch)



*1: Depth dimension of the A series 32-point terminal block module
*2: Depth dimension of the A1ADP + AnS series 32-point connector type module

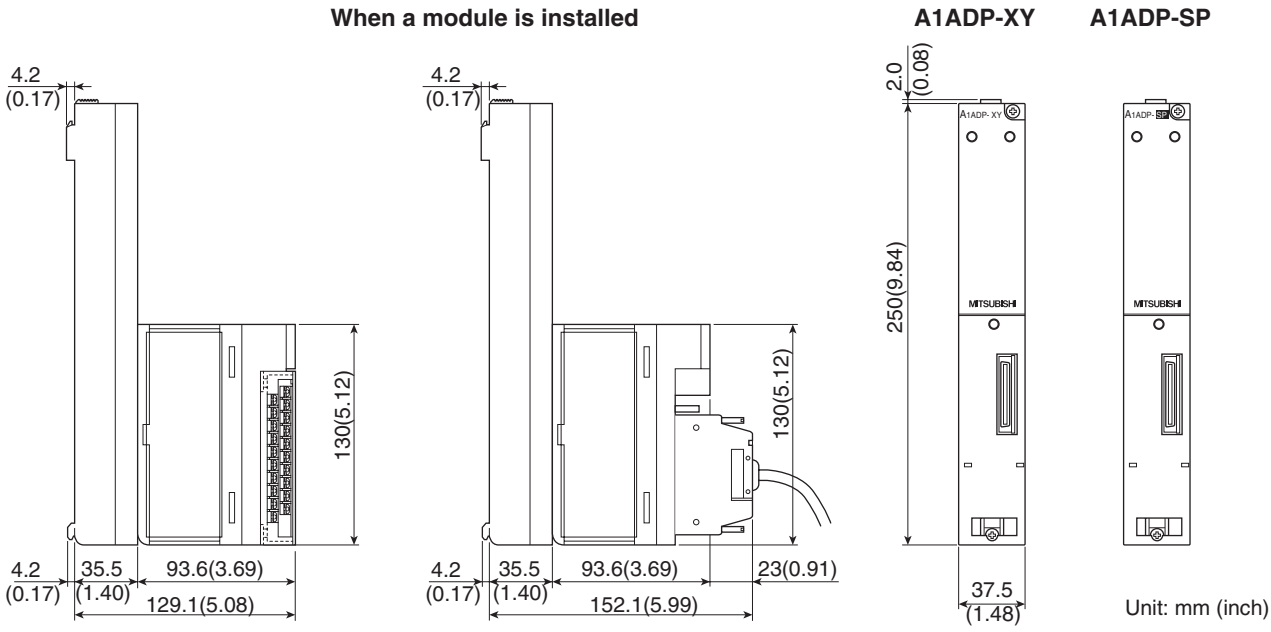
■ Output module with a fuse

The AnS (small type) series output module with a fuse detects fuse blown if external supply power has not been input.
Use special relay M9084 (error check) at power-on with the external supply power OFF so that fuse blown may not be detected.

Performance specifications

Item \ Model	A1ADP-XY	A1ADP-SP
5VDC internal current consumption	3.4mA	0mA
External dimensions	250mm(H) x 37.5mm(W) x 35.5mm(D)	
Weight	0.2kg	
Supplied parts	The dustproof cover for the AnS (small type) series	

External dimensions



Product list

Product name	Model	Model code
A1ADP-XY A- A1S Module Conversion Adapter	A1ADP-XY	13L640
A1ADP-SP A- A1S Module Conversion Adapter	A1ADP-SP	13L641

Manuals

Manual name	Manual supply status	IB/SH No.	Model code
A- A1S Module Conversion Adapter User's Manual	Included with product	IB-0800352-A or later	13JQ00

Country/Region	Sales office	Tel/Fax
U.S.A	Mitsubishi Electric Automation Inc. 500 Corporate Woods Parkway Vernon Hills, IL 60061, USA	Tel: +1-847-478-2100 Fax: +1-847-478-2396
Brazil	MELCO-TEC Rep. Com.e Assessoria Tecnica Ltda. Rua Correia Dias, 184, Edificio Paraiso Trade Center-8 andar Paraiso, Sao Paulo, SP Brazil	Tel: +55-11-3262-4759 Fax: +55-11-288-3047
Germany	Mitsubishi Electric Europe B.V. German Branch Gothaer Strasse 8 D-40880 Ratingen, GERMANY	Tel: +49-2102-486-0 Fax: +49-2102-486-1120
U.K	Mitsubishi Electric Europe B.V. UK Branch Travellers Lane, Hatfield, Hertfordshire., AL10 8XB, UK	Tel: +44-1707-276100 Fax: +44-1707-278695
Italy	Mitsubishi Electric Europe B.V. Italian Branch Centro Dir. Colleoni, Pal. Perseo - Ingr.2 Via Paracelso 12, I-20041 Agrate Brianza (Milano), Italy	Tel: +39-039-60531 Fax: +39-039-6053312
Spain	Mitsubishi Electric Europe B.V. Spanish Branch Carretera de Rubi 76-80 E-08190 Sant Cugat del Valles (Barcelona), Spain	Tel: +34-93-565-3131 Fax: +34-93-589-2948
France	Mitsubishi Electric Europe B.V. French Branch 25, Boulevard des Bouvets, F-92741 Nanterre Cedex, France	Tel: +33-1-5568-5568 Fax: +33-1-5568-5685
South Africa	Circuit Breaker Industries Ltd. Private Bag 2016, 1600 Isando, South Africa	Tel: +27-11-928-2000 Fax: +27-11-392-2354
Hong Kong	Mitsubishi Electric Automation (Hong Kong) Ltd. 10/F., Manulife Tower, 169 Electric Road, North Point, Hong Kong	Tel: +852-2887-8870 Fax: +852-2887-7984
China	Mitsubishi Electric Automation (Shanghai) Ltd. 4/F Zhi Fu Plazz, No.80 Xin Chang Road, Shanghai 200003 China	Tel: +86-21-6120-0808 Fax: +86-21-6121-2424

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Korea	Mitsubishi Electric Automation Korea Co., Ltd. 1480-6, Gayang-dong, Gangseo-ku, Seoul 157-200, Korea	Tel: +82-2-3660-9552 Fax: +82-2-3664-8372
Singapore	Mitsubishi Electric Asia Pte, Ltd. 307 Alexandra Road #05-01/02, Mitsubishi Electric Building Singapore 159943	Tel: +65-6470-2460 Fax: +65-6476-7439
Thailand	Mitsubishi Electric Automation (Thailand)Co., Ltd. Bang-Chan Industrial Estate No.111 Moo 4, Serithai Rd, T.Kannayao, A.Kannayao, Bangkok 10230 Thailand	Tel: +66-2-682-6522 Fax: +66-2-682-6020
Indonesia	P.T. Autoteknindo Sumber Makmur Muara Karang Selatan Block A/Utara No.1 Kav. No.11 Kawasan Industri/ Pergudangan Jakarta - Utara P.O Box5045 Jakarta 11050, Indonesia	Tel: +62-21-663-0833 Fax: +62-21-663-0832
India	Messung Systems Pvt., Ltd. Electronic Sadan NO: III Unit No15, M.I.D.C Bhosari, Pune-411026, India	Tel: +91-20-2712-3130 Fax: +91-20-2712-8108
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